

**SURREBUTTAL TESTIMONY OF UDAY VARADARAJAN**  
**ON BEHALF OF**  
**SOUTH CAROLINA COASTAL CONSERVATION LEAGUE AND**  
**SOUTHERN ALLIANCE FOR CLEAN ENERGY**  
**DOCKET NOS. 2017-370-E, 2017-305-E, 2017-207-E**

1   **Q:     Please state your name and business address for the record.**

2   A:     My name is Uday Varadarajan. My business address is 2490 Junction Place, Suite  
3   3 200m Boulder, Colorado, 80301.

4   **Q:     Have you previously submitted direct testimony in this proceeding?**

5   A:     Yes.

6   **Q:     What is the purpose of your testimony?**

7   A:     The purpose of my surrebuttal testimony is to discuss the rebuttal testimony of  
8   Ellen Lapson and Iris Griffin on behalf of the South Carolina Electric & Gas Company  
9   ("SCE&G" or "the Company"), in response to my direct testimony in these consolidated  
10   dockets.

11   **Q:     At pages 4 and 5 of her rebuttal testimony, Witness Lapson states that**  
12   **securitization is not an available option and that "it is entirely premature and**  
13   **inappropriate to contemplate" securitization as an option. How do you respond?**

14   A:     As I stated in my direct testimony at 8: 9-15, even if securitization is not available  
15   right now, the Commission can condition its approval of the merger on the use  
16   securitization for the recovery of any approved stranded costs of the abandoned V.C.  
17   Summer units, and make the merger condition contingent on legislative action. Mr. Binz  
18   discusses this in his surrebuttal testimony.

1 **Q: At page 40 of her rebuttal testimony, Ms. Lapson discusses the six financial**  
2 **scenarios you modeled using three financing assumptions. Ms. Lapson characterizes**  
3 **the “corporate bond” form of financing as a “straw man” because she is not aware**  
4 **of any examples where this financing has been used. How do you respond?**

5 A: I disagree with Ms. Lapson’s characterization of the “corporate bond” form of  
6 financing as a “straw man.” While the approach is novel, it is closely related to two  
7 approaches that have been widely used—securitization and a reduction in the allowed  
8 rate of return for a regulatory asset to exclude an equity return. The “corporate bond”  
9 approach is economically equivalent to a reduction in the allowed rate of return for the  
10 regulatory asset, and is similar to the proposal from the Office of Regulatory Staff. This  
11 approach involves the use of financing, rate, and accounting mechanisms inspired by  
12 securitization transactions. First, just as with securitization, it ties the reduced rate of  
13 return to the achieved cost of financing of a related financing transaction (a corporate  
14 bond issuance) for cost recovery. Second, it borrows from securitization the transparency  
15 associated with the use of a dedicated rate rider and the use of a dedicated bond issuance  
16 to recover costs. Finally, just as with securitization, it would explicitly disregard the bond  
17 issuance in the calculation of the allowed rate of return for all other assets in rate base for  
18 the utility. While the savings achievable through a corporate bond mechanism would not  
19 be as great as those achievable through securitization, it would not require legislation as  
20 securitization would. As a result, I believe this novel approach merits consideration by  
21 the South Carolina Public Service Commission.

22 **Q: Please discuss the potential negatives Ms. Lapson identifies as being**  
23 **associated with securitization.**

1 A: Ms. Lapson noted the following potential negative consequences as associated  
2 with the use of securitization:

- 3 1) The reduction in operating cash flow to the Company and the impact of those  
4 reductions in the event that the Office of Regulatory Staff plan is implemented;  
5 2) The impact of securitization on the balance sheet of the Company and the  
6 resulting high debt leverage; and  
7 3) The long-term, inflexible nature of the securitization charge and its potential  
8 increasing impact if electricity use declines due to technology changes.

9 **Q: Have you evaluated these negatives and what is your assessment of them?**

10 A: I have. The first two negative consequences are primarily challenges that relate to  
11 the financial health of SCE&G, and may be of concern to the Commission to the extent to  
12 which these “negatives” restrict the ability of the Company to access credit markets. As  
13 Ms. Griffin indicated in her testimony, the most important marker for a utility’s access to  
14 credit is its issuer credit rating, and in particular, whether its credit rating qualifies as  
15 “investment grade.” Therefore, to evaluate whether securitization will negatively affect  
16 the Company, I modeled the how securitization affects the financial strength metrics<sup>1</sup>  
17 used by the credit rating agency Moody’s to determine SCE&G’s likely credit rating  
18 outcome for the six the scenarios I discussed in my direct testimony. The results of that  
19 analysis are summarized in the slides in Exhibit A.

20 **Q: What were your results?**

21 A: While I did find that securitization *may* negatively impact SCE&G’s credit-  
22 relevant financial ratios, the impact varies significantly depending on whether the  
23 Company uses securitization proceeds to pay off both debt and equity or solely to pay

---

<sup>1</sup> Moody’s uses a combination of these financial strength metrics and qualitative factors.

1 down debt. Where securitization is used only to pay down long-term debt, the Company's  
2 credit-relevant financial ratios can (in aggregate) *improve*. However, the savings to  
3 customers are muted somewhat by a potential increase in cost associated with the  
4 resulting greater fraction of equity in the Company's capital structure. The results  
5 indicate that customers will see the greatest savings if securitization is used to pay down  
6 both debt and equity, but at the expense of greater strain on the Company's financial  
7 metrics.

8 **Q: Is that true regardless of whether the Commission approves the merger and**  
9 **its related Customer Benefits Plan?**

10 A: Yes.

11 **Q: Are there differences in how securitization affects the Company's credit**  
12 **rating depending on whether the merger closes or not?**

13 A: Yes. In scenarios which do not involve a merger with Dominion Energy, my  
14 analysis also showed that the financial strain would not be sufficient on its own to result  
15 in SCE&G's credit rating falling below investment grade. Thus, even without the merger  
16 or approval of the customer benefits plan, securitization would have a minimal negative  
17 effect on the Company's credit rating. Using securitization to pay down both debt and  
18 equity in the merger scenarios, however, appears to be credit negative in the near term.  
19 This suggests that if securitization is used in a merger scenario, it be used to pay down  
20 debt alone to mitigate the risk of a near term negative credit impact. However, even in the  
21 two merger scenarios I modeled, the negative credit consequences do not persist in the  
22 mid-to-long term. Within three to five years after the merger, the aggregate financial  
23 strength factors for both merger scenarios with all securitization options rise above the

1 investment grade threshold. In other words, regardless of the scenario, securitization has  
2 no long term adverse impacts on the Company's credit rating.

3 **Q: Do you agree with Witness Griffin's characterization of the consequences of**  
4 **making the Act No. 258 scenario permanent?**

5 A: No. I noted in my direct testimony that making the Act 258 scenario permanent  
6 would be "the lowest cost option *for ratepayers* (excluding potential credit ratings  
7 impacts) on a present value basis (\$1.4bn) and on an annual basis (\$134m in year 2  
8 costs)." However, I also noted that "making the Act No. 258 scenario permanent with  
9 traditional utility financing would require evaluation of credit consequences for the  
10 Company." Varadarajan direct at 15:1-6. Ms. Griffin did not perform this evaluation, but  
11 stated in her rebuttal testimony that making Act No. 258 permanent would result in  
12 "serious credit consequences" for SCE&G. Griffin rebuttal at 23:16-20, and 24:1-2.

13 **Q: Do you agree with Ms. Griffin's assertion that Act 258 would result in**  
14 **"serious credit consequences"?**

15 A: No. The real issue for credit ratings is not whether a Company's score goes up or  
16 down a little; the question is whether the Company's score drops below "investment  
17 grade." In response to Ms. Griffin's concern, I have analyzed the impact of making the  
18 Act 258 scenario permanent on the key financial ratios used by Moody's as inputs into its  
19 grid to determine the issuer credit rating for SCE&G. My analysis shows that while  
20 making Act 258 permanent would negatively impact these financial ratios, the aggregate  
21 impact would not be sufficient to drive the financial risk component of SCE&G's issuer  
22 rating grid score below investment grade. *See* Exhibit A, slides 4 and 5. That is, my  
23 analysis does not show that making Act No. 258 rates permanent would be sufficiently  
24 damaging to SCE&G's financial metrics to result in a downgrade of the Company's

1 issuer rating. The credit risk also declines over time. *Id.* (compare slides 4 and 5).  
2 However, I would note that Moody's considers qualitative factors that go beyond  
3 financial ratios in determining the Company's credit rating, and the substantial  
4 disallowance and write-down implicit in the Act No. 268 scenario could negatively  
5 impact these qualitative ratings factors.

6 **Q: Witness Griffin does not believe that using the proceeds of securitization for**  
7 **renewable energy purchases is "practical." Griffin rebuttal at 27:10-13. How do you**  
8 **respond?**

9 A: On the contrary, securitization can be more effective if the Company reinvests  
10 recovered proceeds back into rate base. This reinvestment can further reduce customer  
11 costs and soften the blow to the Company's operating revenues. Securitization would  
12 provide SCE&G with a return of its capital. While the returned capital could indeed be  
13 returned to investors, it is also available for other purposes. SCE&G may choose to use  
14 that capital instead to address other capital needs or opportunities—of course, subject to  
15 regulatory approval. The opportunity I highlighted in my direct testimony is that the  
16 Company could redeploy that capital to build cheaper, clean generation that could  
17 simultaneously boost its future earnings prospects and decrease generation costs for its  
18 customers, largely through fuel and O&M savings.

19 **Q: So reinvesting securitization proceeds into the rate base has multiple upsides**  
20 **for ratepayers?**

21 A: Yes. This approach could, at once, address two of the challenges with  
22 securitization discussed above by Ms. Lapson. First, redeploying the capital back into  
23 rate base to generate additional operating cash flows and buttress its long-term asset base  
24 would help SCE&G rebuild its balance sheet. Second, this redeployment would reduce

1 rather than increase costs for customers because the Company would take advantage of  
2 lower-cost energy sources to reduce the fuel and operating expenses from its uneconomic  
3 fossil plants. As I showed in my testimony, the total levelized cost of energy from  
4 regional clean energy sources (with federal tax credits) has fallen below the long-term  
5 marginal fuel and operating expenses of many of SCE&G's fossil fuel generating  
6 facilities, so there are ample opportunities to bring down rates for customers by reducing  
7 generation from uneconomic fossil assets and redeploying utility capital to replace that  
8 generation with clean energy sources.

9 **Q: Finally, please explain why your securitization assessment has “substance,”**  
10 **despite Witness Griffin’s protestations that you don’t know the terms of**  
11 **securitization and the costs have not been fully quantified. Griffin rebuttal at 28:1-2.**

12 A: My securitization analysis has “substance” because it is informed by the dozens of  
13 examples across the country where utilities have successfully used securitization. Over  
14 \$50 billion in ratepayer-backed bond securitizations have been used across the United  
15 States to mitigate ratepayer costs when their utilities have faced unanticipated financial  
16 challenges. In 2016, the Florida Public Service Commission authorized the use of a \$1.3  
17 billion securitization to reduce the ratepayer impacts of decommissioning of the failed  
18 Crystal River nuclear plant by nearly \$700 million. I have analyzed in detail—using  
19 transparent assumptions that were either provided directly from SCE&G or based on  
20 recent debt market conditions—how a similar mechanism might be used to reduce  
21 ratepayer costs in South Carolina. The benefits I’ve calculated with these assumptions are  
22 consistent with the estimates by Bates White and other parties in this proceeding.

23 While I agree that the terms and costs of securitization are subject to market  
24 conditions, my analysis provides a reasonable estimate of the potential benefits of this

1 mechanism. With benefits in the range of \$0.5 - \$2.0 billion, it would be a disservice to  
2 SCE&G's customers to ignore securitization as an option for lack of complete certainty.

3 **Q: Do you have any final thoughts?**

4 A: Yes. A central purpose of this proceeding to minimize, to the greatest extent  
5 possible, how much SCE&G customers will pay for a failed nuclear project that will  
6 never deliver a single kWh of electricity. Securitization, as my testimony makes clear,  
7 dramatically reduces customer costs, with minimal economic downsides for the  
8 Company. On balance, if it becomes a viable legal option, there is no good reason for the  
9 Commission to provide additional ratepayer relief using a tool that many other  
10 commissions in many other states have used.

11 **Q: Does this conclude your surrebuttal testimony?**

12 A: Yes, it does.



**EXHIBIT UV-1 TO SURREBUTTAL TESTIMONY OF  
UDAY VARADARAJAN  
ON BEHALF OF  
SOUTH CAROLINA COASTAL CONSERVATION LEAGUE AND  
SOUTHERN ALLIANCE FOR CLEAN ENERGY  
DOCKET NOS. 2017-207-E, 2017-305-E, AND 2017-370-E**

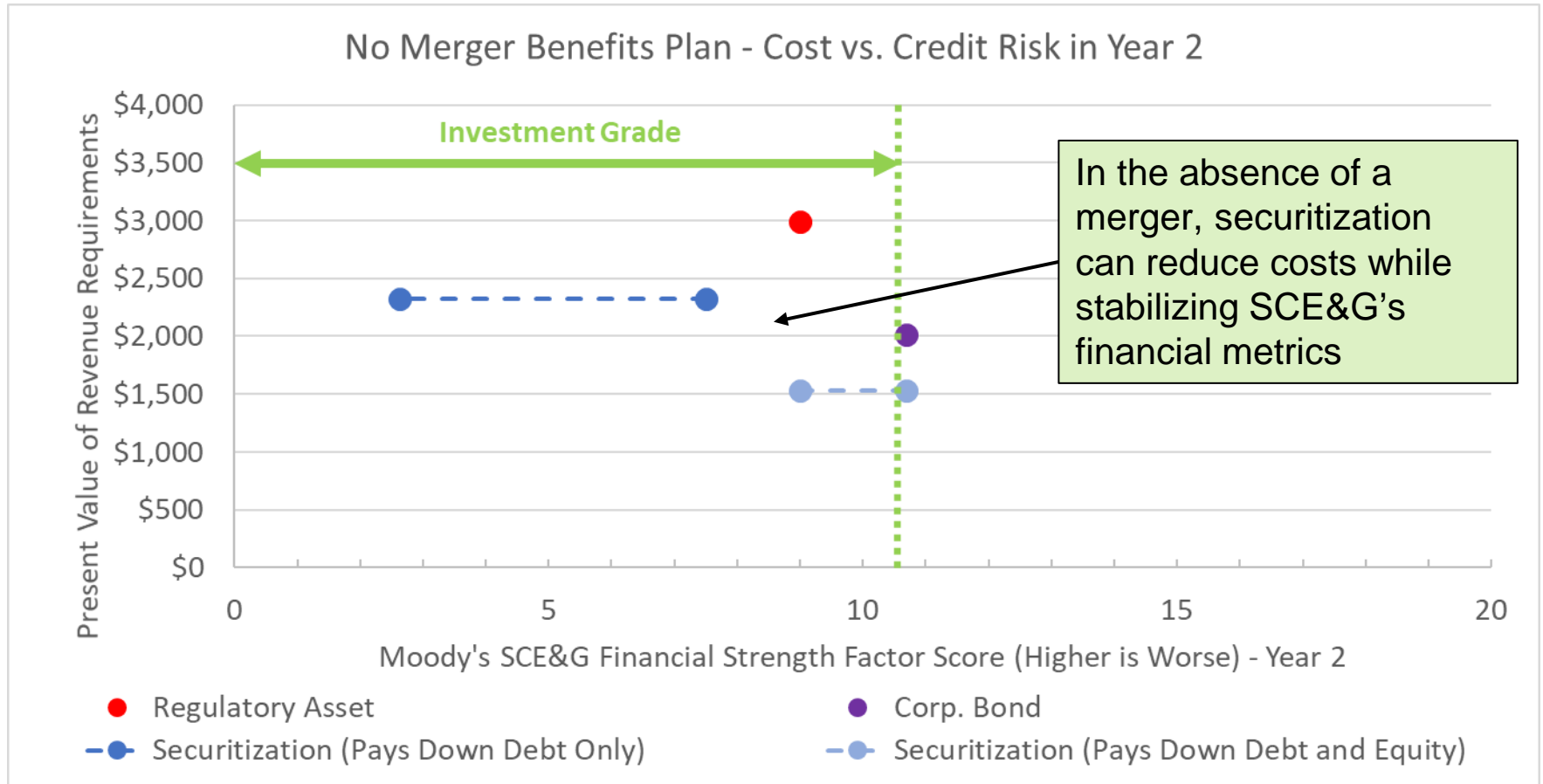
# VC Summer Credit Scenario Analysis

Uday Varadarajan | October 28, 2018



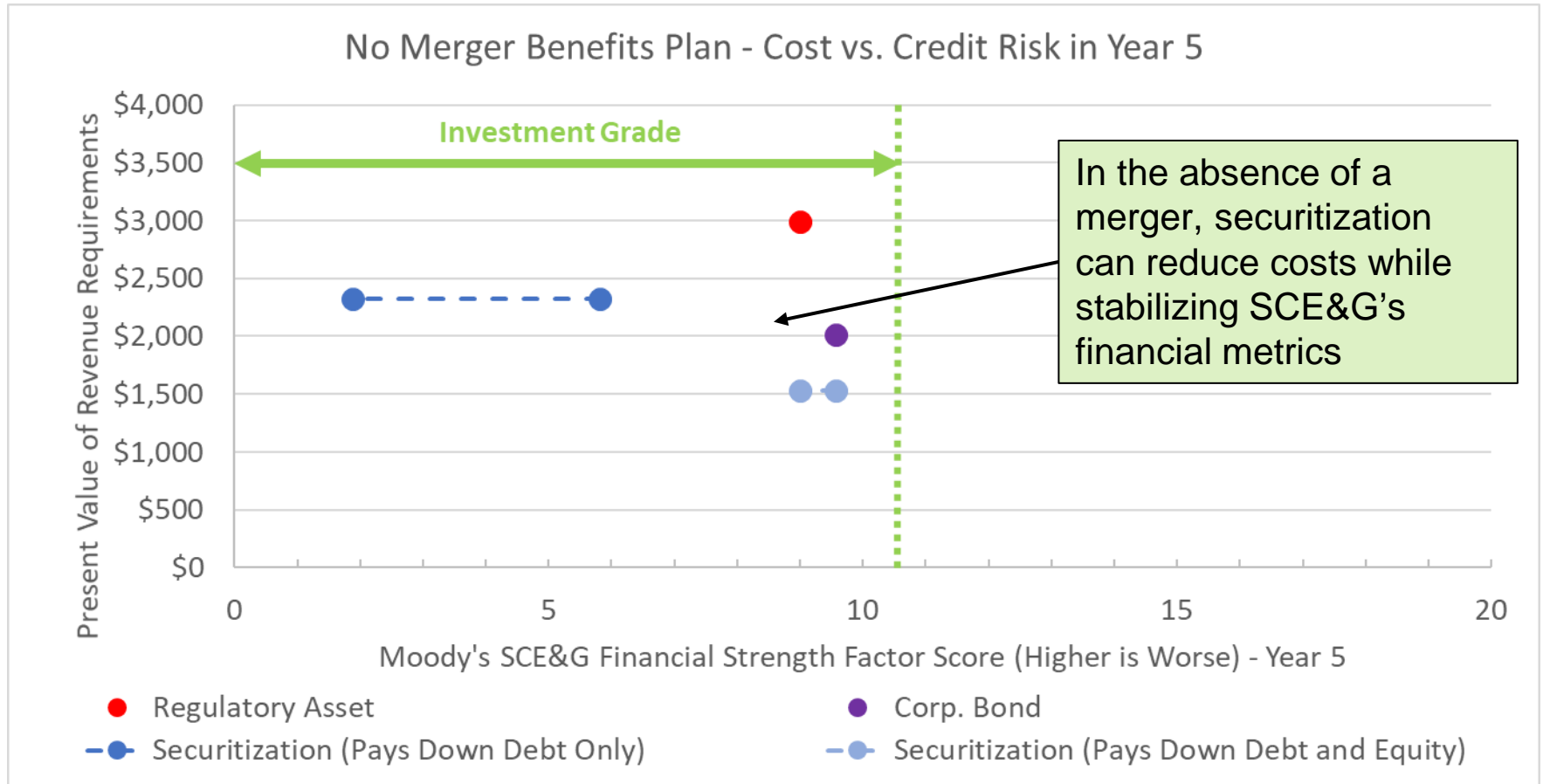
Transforming global energy use to create a clean, prosperous, and secure low-carbon future.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



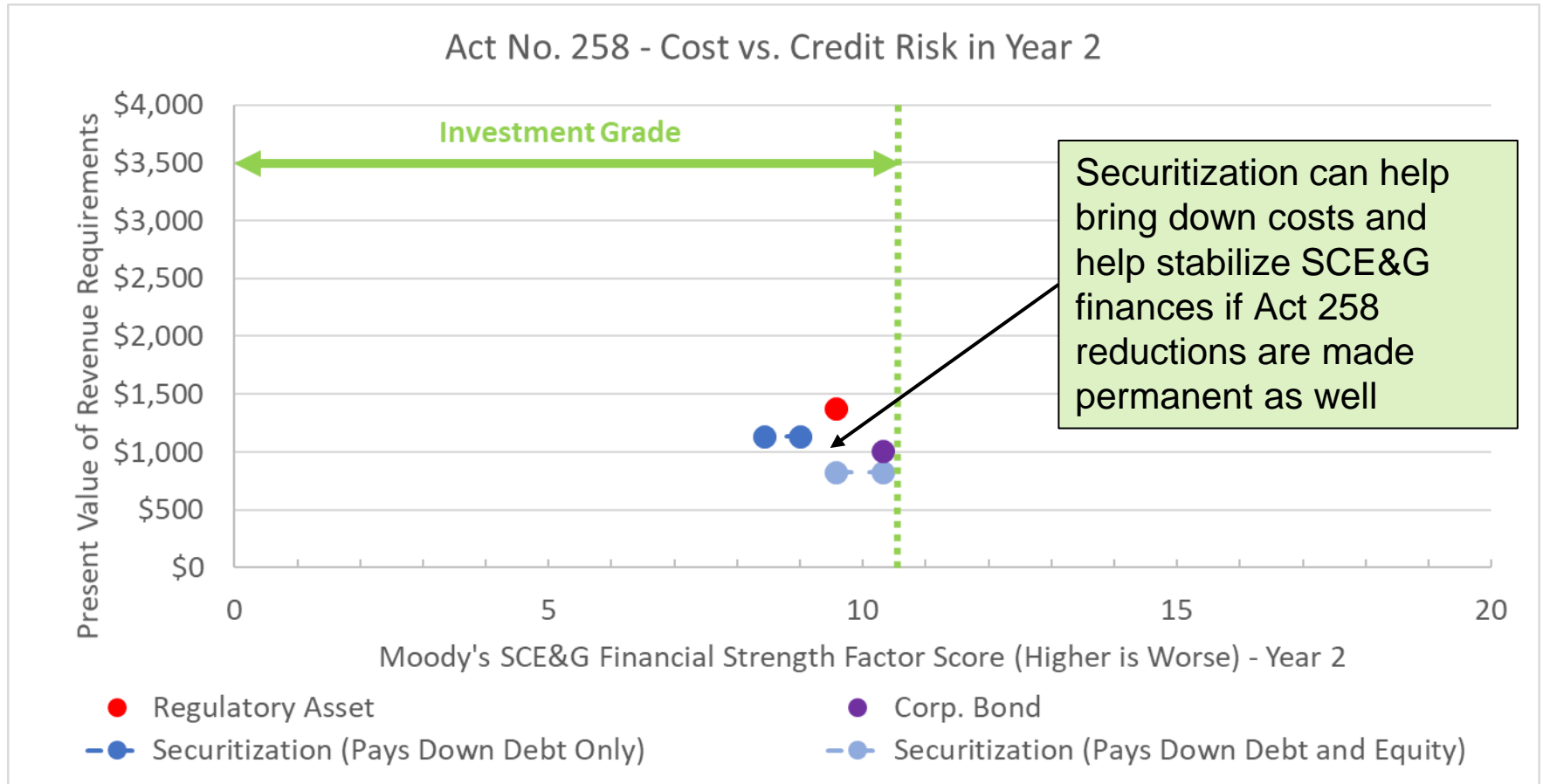
Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



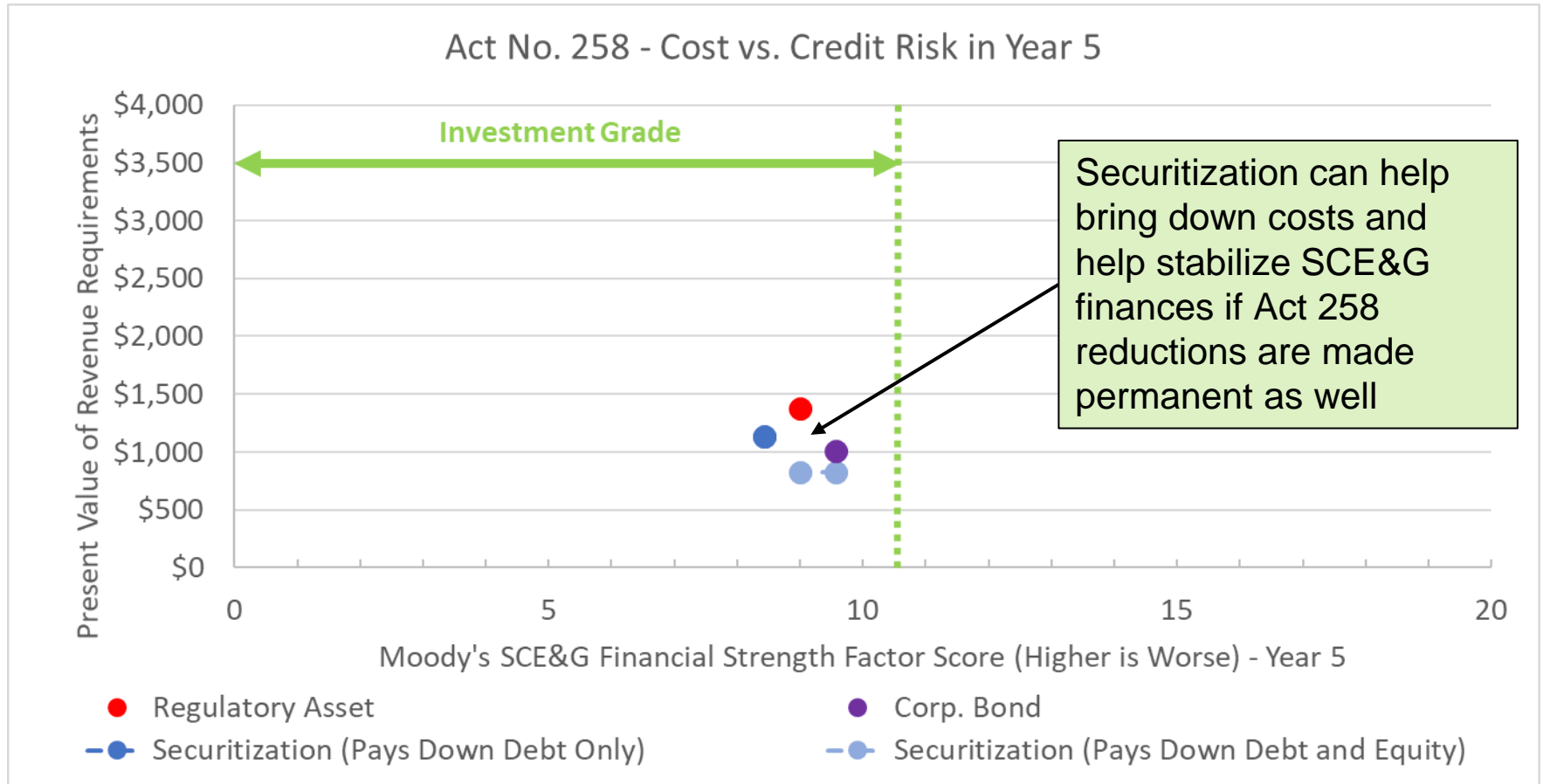
Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



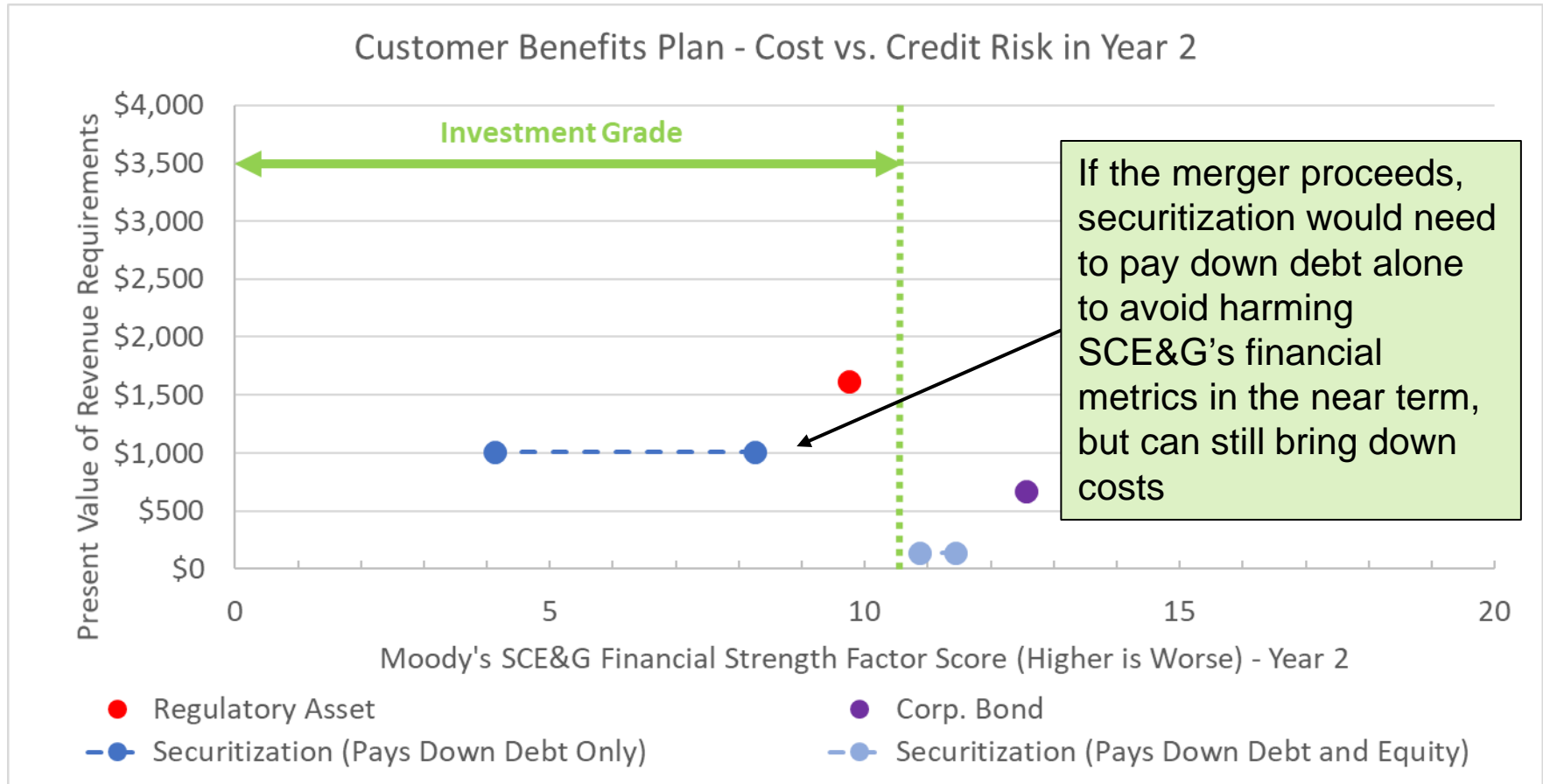
Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



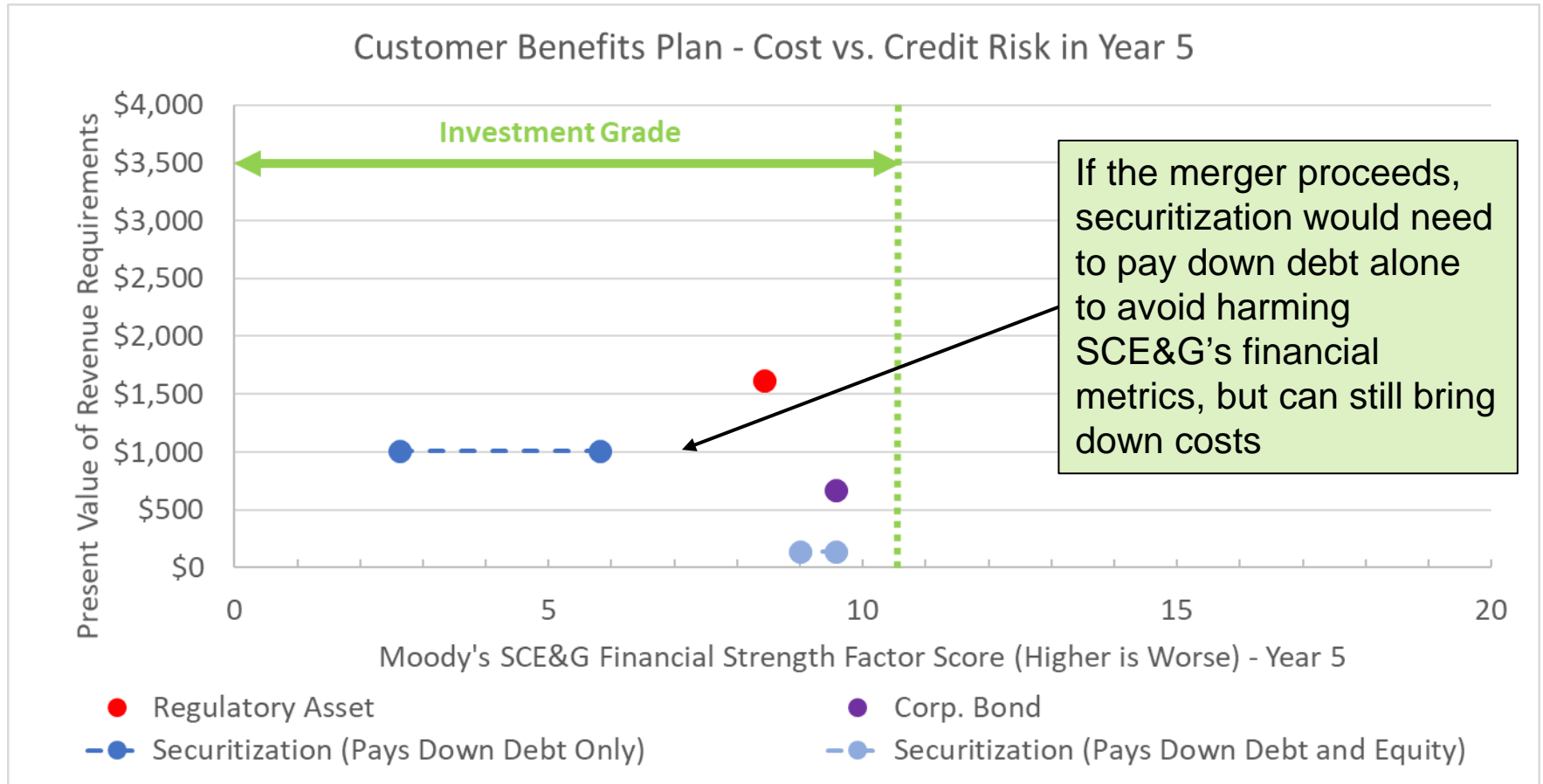
Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

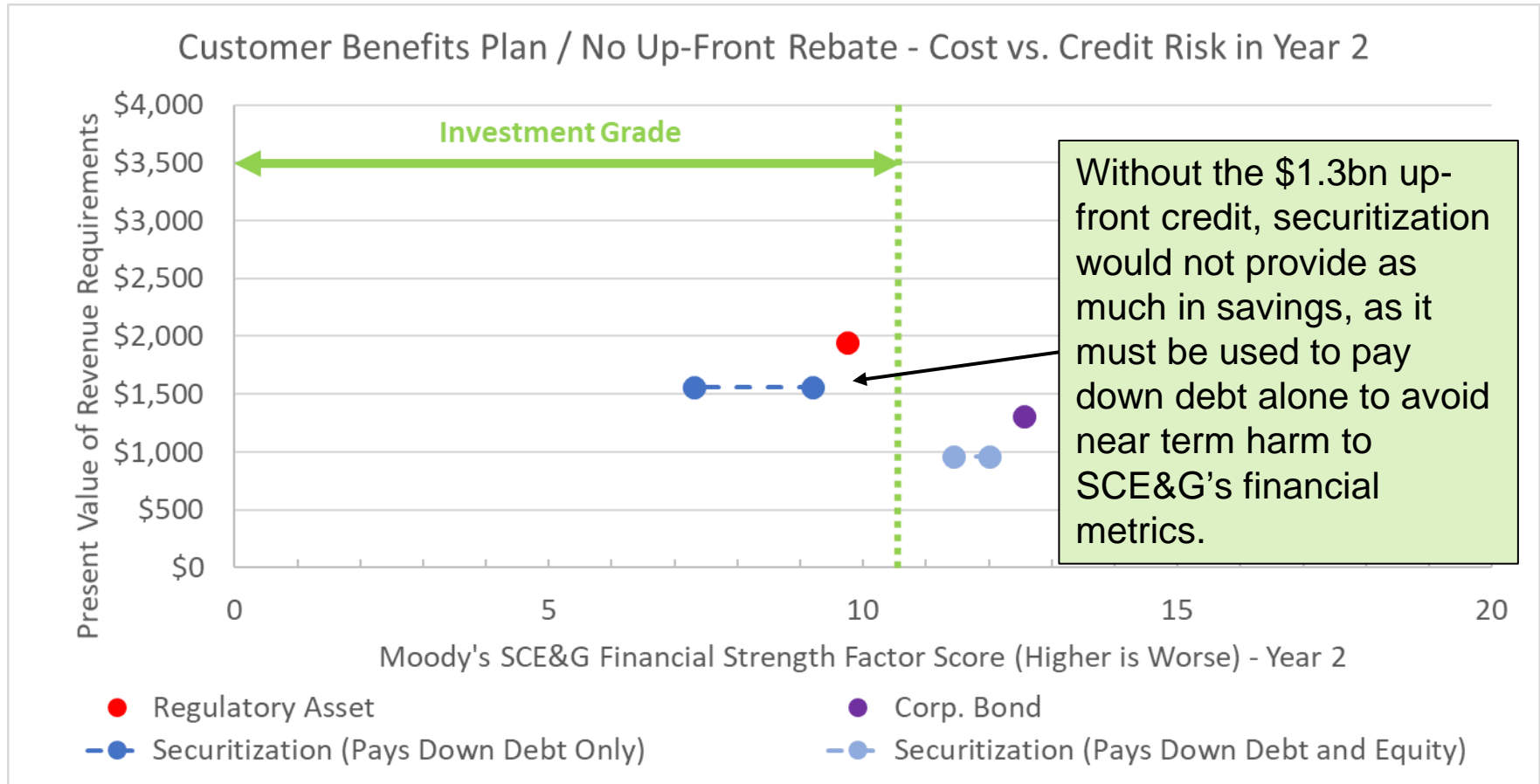
# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

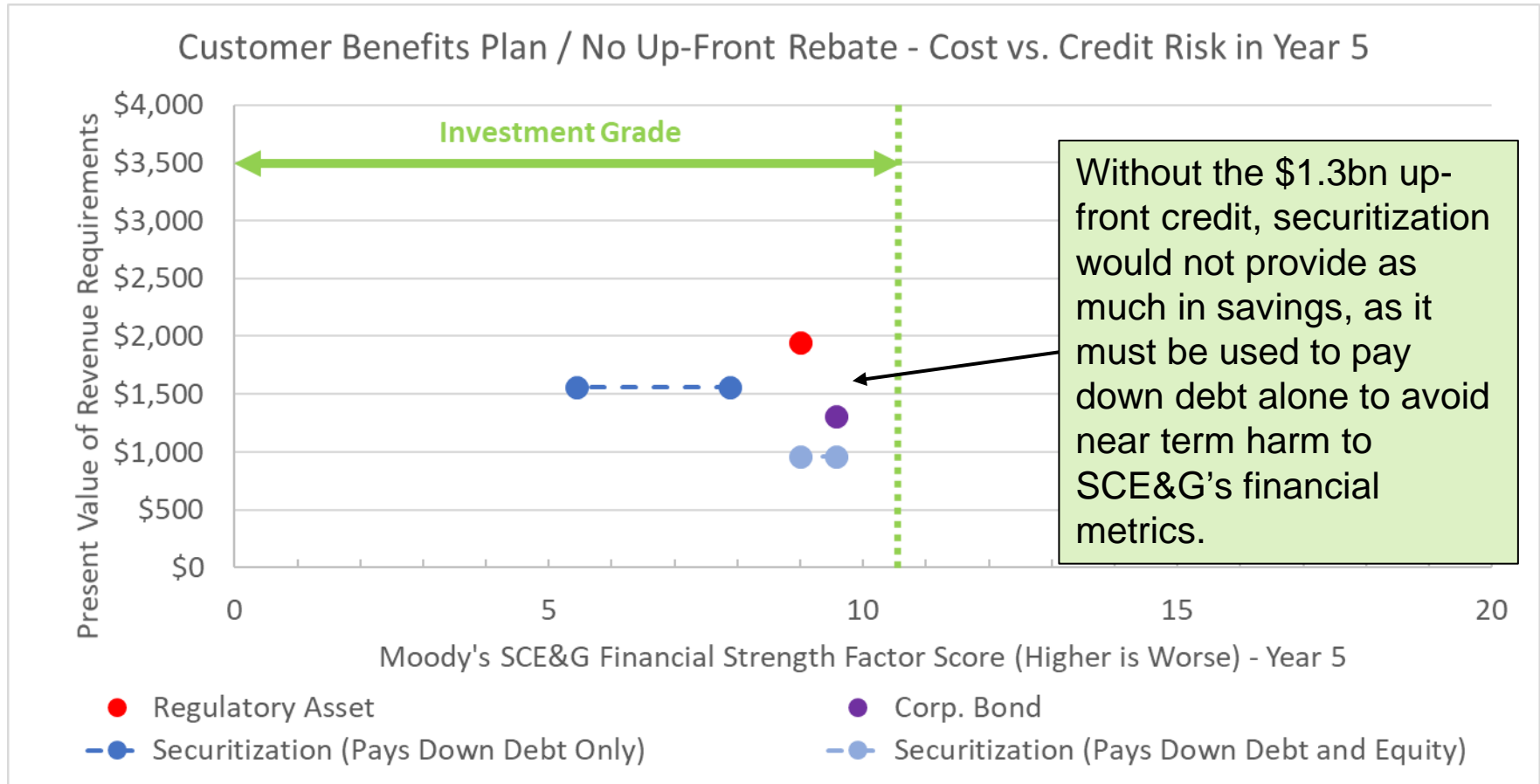


# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.

# Securitization can bring down ratepayer costs while mitigating long-term SCE&G credit impacts in all VC Summer scenarios



Note: The two securitization scenarios differ in how the proceeds are used – either to pay down debt alone or to pay down both debt and equity. The range of financial strength scores for each securitization scenario reflect whether the securitized debt is consolidated on the balance sheet of the utility in calculating financial metrics.